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## Patent Abstracts of Japan

PUBLICATION NUMBER : 04064223  
PUBLICATION DATE : 28-02-92

APPLICATION DATE : 04-07-90  
APPLICATION NUMBER : 02179012

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INT.CL. : H01L 21/285 C23C 16/14

TITLE : MANUFACTURE OF SEMICONDUCTOR DEVICE

ABSTRACT : PURPOSE: To reduce contact resistance by supplying both a reaction gas and a carrier gas, chemically vapor-growing a second W layer on the surface of a first W layer, stopping the supply of the reaction gas so as to externally diffuse fluorine and continuing the feed of the carrier gas.

CONSTITUTION: A reaction gas mixed with a carrier gas,  $WF_6$  and  $SiH_4$ , in the growth process of W are fed intermittently. F contained in a first W layer grown at a first supply timing before a first stopping timing is diffused externally and washed away by the carrier gas not stopped at the first stopping timing when  $WF_6$  and  $SiH_4$  are not supplied. A novel second W layer is laminated and grown on the first W layer, from which F is removed, at a second supply timing, and F contained in the anew grown second W layer is diffused externally and washed away by the carrier gas and taken off. The process of growth and F removal is repeated, thus forming a buried W layer having specified thickness.

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